

CENTRAL FAX CENTER

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**AMENDMENTS TO THE CLAIMS**

The listing below of the claims will replace all prior versions and listings of claims in the present application:

**Listing of Claims:**

Claim 1 (currently amended): A method for supporting vertically hanging electrical resistance elements for heating furnaces or ovens in industrial operations, wherein each resistance element includes ~~a plurality of~~ current-conducting legs that extend upwardly and downwardly, said method comprising the steps of: providing a resistance element assembly including a plurality of vertically-extending resistance element legs; laterally spacing the resistance element legs from each other by a plurality of ceramic support discs that each include a plurality of through-penetrating holes through which respective resistance element legs extend, wherein upper parts of at least two resistance element legs merge with terminals that are connected to a source of electric current; vertically supporting the weight of the resistance elements element assembly by at least one uppermost ceramic support disc; positioning ~~an~~ the at least one uppermost ceramic support disc laterally adjacent a layer of insulation at a furnace roof and above an underside of the ~~roof~~ insulation layer, whereby the at least one uppermost ceramic support disc is maintained at a lower temperature than a furnace interior temperature; and interconnecting legs of the resistance element at a location below the underside of the ~~roof~~ insulation layer

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with conductive connecting plates for reducing current flow through parts of the resistance element legs that are above the connecting plates.

Claim 2 (previously presented): A method in accordance with claim 1, including the step of forming the legs from FeCrAl.

Claim 3 (previously presented): A method in accordance with claim 1, including the step of forming the at least one ceramic support disc from at least one of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, and mixtures thereof.

Claim 4 (currently amended): A method in accordance with claim 3, including the step of positioning uppermost ceramic support discs for supporting the weight of the resistance element assembly at two levels each laterally adjacent to the insulation layer.

Claim 5 (currently amended): A method in accordance with claim 1, including the step of positioning ceramic support discs above an upper side surface of the furnace roof.

Claim 6 (currently amended): An arrangement for supporting vertically hanging electrical resistance elements for heating furnaces or ovens in industrial operations, wherein each resistance element includes ~~a plurality of~~ current-conducting legs that extend upwardly and downwardly, said arrangement

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comprising: a resistance element assembly having a plurality of vertically-extending resistance element legs; a plurality of ceramic support discs that each include a plurality of through-penetrating holes through which respective resistance element legs extend for laterally spacing the resistance element legs from each other, wherein upper parts of at least two resistance element legs merge with terminals that are connected to a source of electric current; at least one uppermost of said ceramic support discs is positioned laterally adjacent a layer of insulation at a furnace roof and above an underside of the roof insulation layer to vertically support the weight of the resistance element assembly, whereby the at least one uppermost ceramic support disc is maintained at a lower temperature than a furnace interior temperature; and wherein legs of the resistance element are interconnected at a location below the underside of the roof insulation layer with conductive connecting plates for reducing current flow through parts of the resistance element legs that are above the connecting plates.

Claim 7 (previously presented): An arrangement in accordance with claim 6, wherein the legs are formed from FeCrAl.

Claim 8 (previously presented): An arrangement in accordance with claim 6, wherein the ceramic support discs are formed from one of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, and mixtures thereof.

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Claim 9 (currently amended): An arrangement in accordance with claim 6, wherein uppermost ceramic support discs for vertically supporting the weight of the resistance element assembly are positioned at two levels each laterally adjacent to the insulation layer.

Claim 10 (currently amended): An arrangement in accordance with claim 6, wherein the at least one ceramic support disc is located above an upper side surface of the furnace roof.